

#### REMARKS

The Examiner is thanked for the Office Action dated January 4, 2005. This amendment and request for reconsideration is being made as a response thereto. By this amendment, applicant re-presents claims 1 to 16 and adds new claims 17 to 34. A check in the amount of \$650 accompanies this amendment for the additional claims. A Request for a One Month Extension of Time for replying to the Examiner's Office Action together with a check for \$60 accompanies this Amendment.

The Examiner is also thanked for the courtesies extended to applicant's representative during a personal interview conducted on April 7, 2005. During the interview, two types of scintillating fiber dosimetry systems were discussed (systems with a single, continuous fiber and systems with a scintillating fiber tip coupled to an optical fiber light guide) and the effect of Cerenkov radiation on scintillating and optical fibers was discussed.

In particular, it was noted that where the length of the scintillating fiber tip is less than the length of the radiation field to be measured or mapped by incremental or continuous advances along a fixed path, a displacement difference measuring method *will not* produce a result indicative of dose rate along the fixed path. For example, as a 1 mm long scintillating fiber tip advances through a constant dose-rate radiation field of much greater dimension, the amount of scintillation in the tip will remain substantially constant, and any use of "difference dosimetry" (e.g. the change in detected light, or  $\Delta V$ , as the fiber advances) will erroneously indicate that the radiation field has no

(i.e. zero) dose-rate (if Cerenkov light and other noise is not present) or a dose-rate which in fact only represents noise.

During the Interview, the Examiner also stated that he would be considering the Information Disclosure Statement filed with this case. A machine translation (and a partial human translation) of JP 2001-56381 was given to the Examiner (the same is also of record in the parent case).

For the record, scintillating fiber tips which are long relative to their cross-sectional dimension are themselves "scintillating fibers" within the broadest meaning of applicant's claims. However, it is a functional displacement difference dosimetry method for use with scintillating fibers that applicant claims as his invention, and that is not suggested by the prior art of record.

Turning now to the Office Action, the Examiner has rejected all the claims under 35 USC 103(a) as being obvious over Leone et al. (5,811,814) in view of Keilman et al. (6,231,516; erroneously listed as 6,231,513 on the PTO-892) and/or Japan 02-206786. Applicant traverses all of these rejections.

To modify Leone et al. '814 to use "displacement difference dosimetry" as described in the Office Action would destroy the Leone et al. invention since he uses a scintillator 34 which is 1 mm in length that cannot be used to perform displacement difference measurements in his region of interest 20 which is much greater than 1 mm in length (for the reasons described above).

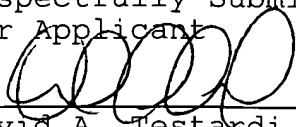
The Office Action additionally specifies (by column and line number and with clarity and detail representative of applicant's

own claim language) that Keilman et al. '516 shows a plethora of applicant's claimed steps for "displacement difference dosimetry" as used with scintillating fibers. The Examiner presents Keilman et al. '516 as a secondary reference to modify Leone et al. '814 by providing "displacement difference dosimetry" features. However, applicant notes that, unless the Examiner has made some honest mistake, this characterization (or mischaracterization) of the Keilman et al. '516 reference is wholly fictitious.

In truth, Keilman et al. '516 does not even disclose a scintillating fiber, let alone any steps of "displacement difference dosimetry." Accordingly, even if Leone et al. '814 and Keilman et al. '516 were combined (which there is no teaching, suggestion, or motivation in the prior art to do), the result would simply be Leone et al. '814. Moreover, Japan 02-206786 makes up for none of the deficiencies of Leone et al. '814 or Keilman et al. '516 noted above.

For the reasons given above, it is believed that this case is now in condition for allowance. Reconsideration of the Examiner's rejection is requested. In the event that the Examiner discovers issues which warrant correction, he is invited to contact applicant's representative at the telephone number listed below.

Respectfully Submitted,  
for Applicant

  
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